Abstract

RDBMS is the heart for both OLTP and OLAP types of applications. For both types of applications thousands of queries expressed in terms of SQL are executed on daily basis. All the commercial DBMS engines capture various attributes in system tables about these executed queries. These queries need to conform to best practices and need to be tuned to ensure optimal performance. While we use checklists, often tools to enforce the same, a black
Outlier Detection Techniques for SQL and ETL Tuning

box technique on the queries for profiling, outlier detection is not employed for a summary level understanding. This is the motivation of the paper, as this not only points out to inefficiencies built in the system, but also has the potential to point evolving best practices and inappropriate usage. Certainly this can reduce latency in information flow and optimal utilization of hardware and software capacity. In this paper we start with formulating the problem. We explore four outlier detection techniques. We apply these techniques over rich corpora of production queries and analyze the results. We also explore benefit of an ensemble approach. We conclude with future courses of action. The same philosophy we have used for optimization of extraction, transform, load (ETL) jobs in one of our previous work. We give a brief introduction of the same in section four.

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Outlier Detection Techniques for SQL and ETL Tuning

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